



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,077	07/10/2003	Jose Luis Moctezuma de la Barrera	NAVI498	3385

51017 7590 07/19/2006

INTEL. PROP./ RND  
STRYKER CORPORATION  
4100 EAST MILHAM AVE.  
KALMAZOO, MI 49001-6197

EXAMINER
----------

JOHNSON III, HENRY M

ART UNIT	PAPER NUMBER
----------	--------------

3739

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/617,077

Applicant(s)

MOCTEZUMA DE LA BARRERA ET AL.

Examiner

Henry M. Johnson, III

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 60-99 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 60-99 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***Response to Amendment***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/30/2006 has been entered.

Applicant's arguments with respect to claims have been considered but are moot in view of cancellation of all claims and new claims presented.

Applicant is requested to review the amendment submission for errors as several of the pages had the wrong application number at the top. It appears the content was appropriate with just an improper application number, however, this should be reviewed to insure no incorrect information from another case was inadvertently included.

***Claim Objections***

Claims 60, 71, 81 and 89 are objected to because of the following informalities: the word presents in the last paragraph of the claim should be present. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 70 and 80 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 70 recites the limitation "the cutting accessory" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 3739

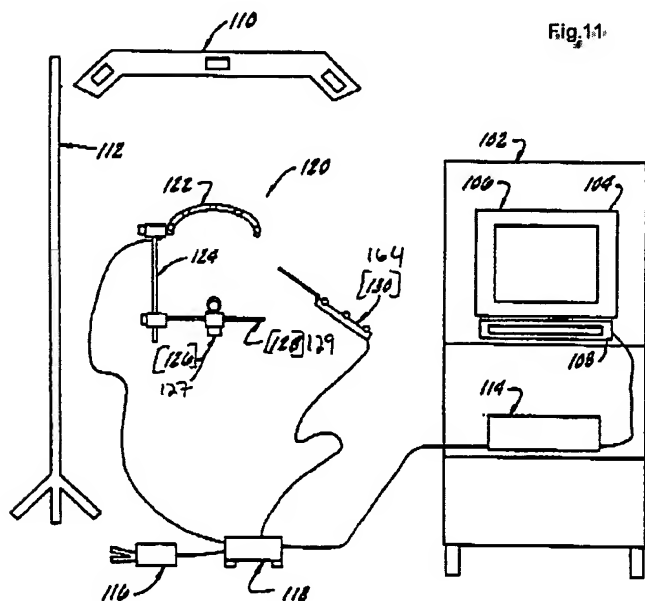
Claim 80 recites the limitation "the cutting accessory" in line 7. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).



Claims 60-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US 2002/0035321 to Bucholz et al. in view of U.S. Patent 5,928,137 to Green and further in view of U.S. Patent 6,761,561 to Mandelkern et al. Bucholz et al. disclose a system for use during a surgical procedure on a body. The system generates an image

Art Unit: 3739

representing the position of one or more body elements during the procedure using scans generated by a scanner prior or during the procedure. The image data set has reference points for each of the body elements, the reference points of a particular body element having a fixed spatial relation to the particular body element. The system includes an apparatus for identifying, during the procedure, the relative position of each of the reference points of each of the body elements to be displayed (abstract). Using a navigation system (Fig. 11), the positioning of an instrument relative to a body can be displayed. One instrument that is used commonly is a drill. By placing emitters (tracking member) on a surgical drill (handpiece), and by having a fixed relationship between the drill body and its tip (usually a drill bit), the direction and position of the drill bit can be determined. The drill bit is interpreted as an accessory (and distal end) and such a bit inherently moves as it rotates. At least three emitters would be needed on the drill, as most drills have a complex three-dimensional shape (paragraph 0103). The instrument could also be forceps, a laser, a microscope, an endoscope, or a radiation delivery system, which would be used during the procedure and modified by the addition of emitters. This modified device when moved into the area of the body elements would be activated so that its emitters would communicate with a reference array thereby permitting determination of the instrument's position. As a result, processor (fig. 11, # 104) would modify display to indicate the position of the instrument or the instruments focal point, such as by positioning a cursor (symbol), with respect to the body elements, which allows the determination of the exact procedural position, orientation, and shape in surgical space of each body element (paragraph 0088). The reference emitters are disclosed as being battery operated to eliminate cables (paragraph 0114). Drills used in surgical procedures are commonly motor driven, the motor being an actuator, and have chucks for interchanging bits. Bucholz et al. do not teach the display attached to the handpiece or the wireless transfer of image data. Green teaches an endoscopic instrument with a flat panel dis-

Art Unit: 3739

play (interpreted as generic term wherein an LED version is a species) attached to provide a surgeon with a visual perspective similar to open surgery (abstract). An LED display inherently selectively activates individual pixels to provide a display. Mandelkern et al. disclose the wireless transfer of data, specifically image data in a medical environment to eliminate the inconvenience of a cable (Col. 2, line 18). The elimination of cables would also motivate a skilled artisan to use batteries as suggested for the reference emitters by Bucholz et al. for the drill as such drills are well known. Having no cables for data or power renders the device cordless. It would have been obvious to one skilled in the art to use wireless means for image transfer as taught by Mandelkern et al. to provide image data to an instrument mounted display as taught by Green in the invention of Bucholz et al. to reduce cable clutter in the area as suggested by Mandelkern et al. and to allow more natural line of sight operation of a surgeon as suggested by Green.

Regarding claims 65, 74, 86 and 94, the references disclose the claimed invention except for including selective pieces in a separate unit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to group selective components to be detachable from the handpiece, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

### ***Conclusion***

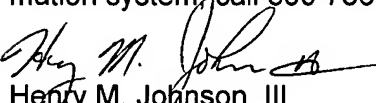
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publications US 2002/0055679 and 2001/0007919 teach surgical navigation systems with instruments that provide positional and orientation data via a display.

Art Unit: 3739

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M. Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Henry M. Johnson, III  
Primary Examiner  
Art Unit 3739